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AN OVERVIEW OF STROMATOPOROID DOMINATED MIDDLE DEVONIAN REEF COMPLEXES IN NORTH QUEENSLAND.

Memoirs of the Queensland Museum 44: 99. 1999:- Middle Devonian stromatoporoid buildups are known from the Burdekin Subprovince and the Broken River Province in the Townsville hinterland, north Queensland.

Recent studies have placed these buildups within a reliable stratigraphic and sedimentologic framework. Buildups within the Burdekin Subprovince developed in a restricted near to proximal shore setting in a partially enclosed basinal setting. Those buildups within the Broken River province developed upon a more open marine shelf.

Major Burdekin stromatoporoid-coral buildups were of two types: low relief extensive biostromes and associated stromatoporoid pavements, and a biohermal system of one to two metres relief from the sea floor. Additional buildups of note are small patch reefs developed within nearshore siliciclastic muddy lagoons adjacent to granitic headlands. In a number of such metre scale buildups within dominantly siliciclastic settings, assemblages of stromatoporoids and corals show repetitive growth interruption surfaces suggesting episodic stress and killing events. Storm disturbance during development the biostromal pavements was high and an important sedimentologic factor for the 'reef' growth. Minor sponge s.s. buildups

are known from the uppermost Burdekin Formation, but have not been studied.

In the Broken River Province, Givetian buildups are more extensive and can be traced on the hundreds of metre scale, these have received little detailed sedimentologic study, but are of similar style to biostromal pavements from the neighbouring Burdekin Basin. Minor biohermal occurrences are found within the Papilio Mudstone, and formed on a muddy shelf, and include both stromatoporoid and sponge s.s. buildups.

Stromatoporoid taxonomy has revealed the presence of eight stromatoporoid communities in the Burdekin Basin, comprising 35 taxa. Dominant stromatoporoids were dendroids *Amphipora*, *Stachyodes* and *Trupetostroma*, frame building. *Trupetostroma*, *Pseudotrupetostroma*, *Hermatostroma*, *Actinostroma* and *Ferestromatopora*. *Coenostroma*, *Clathrocoilona*, and *Stromatopora* were accessory to reef growth. In the Broken River detailed taxonomic work has only been partially completed. Significant overlap exists at generic level with the two adjacent provinces, but species level differences are strong suggesting distinct partitioning of open marine versus embayment faunas. This phenomenon is reflected in other faunal elements (gastropods, rugose corals). □ *Porifera, stromatoporoid, biostromes.*

Alex G. Cook (email: AlexC@qm.qld.gov.au), Geology and Invertebrate Palaeontology, Queensland Museum, PO Box 3300 South Brisbane, Qld 4101 Australia; 1 June 1998.